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# AMENDMENT TRANSMITTAL LETTER (Large Entity)

Applicant(s): **Yoshinori ITO**

Docket No. **04452/015001**

| Serial No. | Filing Date | Examiner | Group Art Unit |
|---|---|---|---|
| 09/912,938 | July 25, 2001 | | |



Invention: **ABSOLUTE POSITION DETECTING DEVICE FOR A LINEAR ACTUATOR**



TO THE ASSISTANT COMMISSIONER FOR PATENTS:

Transmitted herewith is an amendment in the above-identified application.

The fee has been calculated and is transmitted as shown below.

CLAIMS AS AMENDED

| | CLAIMS REMAINING AFTER AMENDMENT | | HIGHEST # PREV. PAID FOR | | NUMBER EXTRA CLAIMS PRESENT | RATE | ADDITIONAL FEE |
|---|---|---|---|---|---|---|---|
| TOTAL CLAIMS | 2 | - | 20 | = | 0 | x $18.00 | $0.00 |
| INDEP. CLAIMS | 1 | - | 3 | = | 0 | x $84.00 | $0.00 |
| Multiple Dependent Claims (check if applicable) ☐ | | | | | | | $0.00 |
| TOTAL ADDITIONAL FEE FOR THIS AMENDMENT | | | | | | | $0.00 |

☒ No additional fee is required for amendment.

☐ Please charge Deposit Account No. in the amount of
A duplicate copy of this sheet is enclosed.

☐ A check in the amount of to cover the filing fee is enclosed.

☒ The Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. **50-0591**
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- ☒ Any additional filing fees required under 37 C.F.R. 1.16.
- ☐ Any patent application processing fees under 37 CFR 1.17.



*Signature*

Dated: Dec 12

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I certify that this document and fee is being deposited on 12-12-01 with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

*Signature of Person Mailing Correspondence*

**Rhonda L. Parker**

*Typed or Printed Name of Person Mailing Correspondence*

cc:

#5 Pre Amdt A 2.6.02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



**APPLICANT:** Yoshinori ITO
**SERIAL NO:** 09/912,938
**FILED:** July 25, 2001
**TITLE:** Absolute Position Detecting Device for a Linear Actuator
**ART UNIT:**
**EXAMINER:**

U.S. Patent and Trademark Office
P. O. Box 2327
Arlington, VA 22202

## PRELIMINARY AMENDMENT

Dear Sir:

Before examining the referenced application on the merits, please amend the application as outlined below:

## IN THE SPECIFICATION

Please amend the Specification as follows. A marked–up copy of the amended portions of the Specification are provided in Appendix B:

Please replace paragraph 5 located at page 4, line 39 through page 5, line 9 with the following:

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Q1

(Amended) With each rotation of the motor 2, the actuator output shaft 3 is moved linearly in the axial direction by an amount that is in accordance with the lead pitch of the ball-screw 41. Here, the combination of signal A and signal B will be examined. If Lp is the amount by which the output shaft 3 is moved per rotation of the motor and Sp is the detection pitch (one linear-stroke pitch) as detected by the linear absolute sensor, and $Lp \neq Sp$, then, if signals A and B are combined, even if the output shaft 3 moves within the space of the movement interval until $aLp = bSp$ (where a and b are arbitrary coefficients), at no point of the movement is the combination of the signals A and B the same. Therefore, provided that the values of coefficients a and b are sufficiently large, it is possible to realize a linear absolute sensor that, based on the combination